# MicroWaves' Index-1967

### **Technical Articles**

- Broadband Varactor Tuning of Transistor Oscillators, John Chernega and Charles N. Herbert, March, p. 28.
- Capacity Coupling Shortens Comb-Line Filters, Edward G. Cristal, December, p. 44.
- Chebyshev Filters Performance Tables, Leo Young, October, p. 54.
- Chebyshev Transformer Nomograms, Fred E. Gardiol, November, p. 56.
- Constant-Impedance PIN-Diode Attenuators, Carl A. Prufer, August, p. 46.
- Corner Reflector Nomograms, John R. Strang, April, p. 96.
- Designing Cryogenic Microwave Systems, Thomas P. Duprex, October, p. 38.
- Driving the Pin-Diode Switch, Chuck Forge, April, p. 30.
- Ferrite-To-Metal Brazing, John M. White and Robert W. Buck, February, p. 26.
- Gas-Laser Frequency Stabilization, Alan D. White, January, p. 50.
- Graphical Design of Strip-Line Directional Couplers, J. K. Richardson, October, p. 71.
- Graphs Speed Design Of Interdigital Filters, William S. Metcalf, February, p. 91.
- High-Power Microwave Safe-Distance Nomograms, Donald E. Cozzens, July, p. 58.
- Helogram Efficiency and Response, Herwig Kogelnik, November, p. 68.
- How To Determine Antenna Pattern Loss, Gerald A. Bradley, January, p. 38.
- Integrated Radome-Antenna Designs, Howard S. Jones, September, p. 34.
- Lambda Functions Describe Antenna/Diffraction Patterns, John F. Ramsay, June, p. 69.
- Lasers vs Microwaves For Deep-Space Communications, Edward C. Park, and Lyle S. Stokes, May, p. 78.

- Let's Talk Gridded Tubes, James W. Rush, May, p. 46.
- Low-Cost Amplifier Uses Meander-Circuit Approach, John Lauchner and R. Weirather, August, p. 36.
- Microwave Transistor-Parameter Trade-Offs in Circuit Design, (Part 1), John G. Tatum, September, p. 26.
- Microwave Transistor-Parameter Trade-Offs in Circuit Design, (Part 2), John G. Tatum, October, p. 46.
- M I c r o w a v e Transistor-Parameter Trade-Offs in Circuit Design, (Part 3), John G. Tatum, November, p. 44.
- Modern Tests For Modern Transistors, Julius Lange, December, p. 38.
- New and Accurate Inside-Out Smith Chart, W. C. Blanchard, November, p. 38.
- Noise Curves for High-Gain Antennas, Herbert Reed, April, p. 46.
- Nomogram Speeds High-Power Isolator Selection, Fred E. Gardiol, December, p. 52.
- Obtaining Beam-Pointing Accuracy With Cassegrain Antennas, Anthony M. Isber, August, p. 40.
- Optimizing the Gain of Parabolic Antennas, Keith E. McKee, Thomas Chariton, and Alfred G. Holtum, Jr., March, p. 34.
- Outside-Of-Cavity Ignitor Jumps TR Tube Life, Harry Goldie, October, p. 62.
- Performance of Harmonic Diode Mixers, Morris Engelson, August, p. 32.
- Phase Shifter for Wideband Signals, Gerald F. Ross, March, p. 42.
- Reliability Without Redundancy From A Radar Monopulse Receiver, Robert S. Noblit, December, p. 56.
- Response of Capacitive Voltage Dividers, Robert J. Thomas, August, p. 50.

- RF Design of Communication Satellite Earth Stations (Part 1), C. Louis Cuccia, Todd G. Williams, Phil R. Cobb, Allen E. Smoll and James P. Rahilly, May, p. 30.
- RF Design of Communication Satellite Earth Stations (Part 2), C. Louis Cuccia, Todd G. Williams, Phil R. Cobb, Allen E. Smoll and James P. Rahilly, June, p. 27.
- RF Design of Communication Satallite Earth Stations (Part 3), C. Louis Cuccia, Todd G. Williams, Phil R. Cobb, Allen E. Smoll and James P. Rahilly, July, p. 42.
- Save Space With A Luna-Slot Antenna, William J. McCabe and C. Joseph Hunt, November, p. 60.
- Shutter System Reduces Laser Hazards, Norman Koch, March, p. 129.
- Signal Attenuation Nomograms for One-Way and Round-Trip Signals, L. M. Frazier, June, p. 39.
- Solid-State Magnetic Modulators: Questions and Answers, Don Cook, May, p. 56.
- Strip-Line Coupler Design Chart, Lester R. Barker, March, p. 46.
- Temperature Stabilization of Klystron Oscillators, Wayne Abraham, April, p. 40.
- The Government Laser Market, Richard C. Marshall, March, p. 121.
- Understanding CO, Lasers, David R. Whitehouse, July, p. A6.
- Watts, Volts, and DBM Conversion Chart, Richard V. Hartman, January, p. 44.
- Which Tube for Phased Arrays? A Panel Discussion, (Part 1), January, p. 27.
- Which Tube for Phased Arrays? A Panel Discussion, (Part 2), February, p. 34.
- Working With Etalons, Viktor Met, September, p. 45.
- World-Wide Specs on Rectangular Waveguides and Flanges, M. Michael Brady, July, p. 33.

### MicroWaves' Index

#### News

- A Flying Ground Station For Apollo, February, p. 18.
- Airlines Issue Shopping List For Collision-Avoidance System, August, p. 19.
- A Laser To Prevent Bumper-Tag, January, p. 14.
- Application Yields To Innovation At Electron Devices Meeting, October, p. 8.
- A Radar Medical Tool for The Future, March, p. 14.
- Army Presses For Nike-X R&D, August, p. 16.
- ATS-B Microwave Experiments Succeeding, January, p. 14.
- Avalanche Diodes Top 400-W Pulse At 1 Gc, June, p. 10.
- Boston To Host 1967 G-MTT Symposium, April, p. 18.
- Britain To Boost Civil Satcom Capability, April, p. 14.
- Brooklyn Poly Sponsors Optics Symposium, March, p. 25.
- Bulk-Effect Power Breakthrough: 400 kW at X band Predicted, February, p. 14.
- Design Given For Dielectric Support, December, p. 28.
- Did Radar Failure Cause Surveyor "Bounce"?, July, p. 18.
- DOD Spurs Work On New Mortar-Detection Radar, August, p. 17.
- Eastern Test Range "Shopping List" Loaded With Microwave Items, June, p. 18.
- 40-dB Nuil Obtained With Monopulse Antenna, July, p. 17.
- Have Microwaves Gone "Chicken"?, May, p. 16.
- Laser Technology May Lead To "Three-D Sonar," December, p. 22.
- LSA Promises Power at Mm Waves, March, p. 10.
- LSAs Pushed For Phased-Array Radar, September, p. 10.
- Microwave Communication Links, May, p. 18.

- Microwave Film Drying Saves Costs, Improves The Product, December, p. 16.
- Microwaves Speed Film Drying, May p. 14.
- Mm-Wave Satellite Hardware On The Way, November, p. 25.
- NASA Fails To Catch CAT With Airborne Laser Radar, August, p. 17.
- New Comsats Get Fancier To Save Money On The Ground, August, p.
- 9-Gc Transistor Could Speed ICs, January, p. 14.
- On-The-Nose Test Checks Radar Performance, June, p. 15.
- 100-kW Parametric Lasers Have 3% Conversion Efficiency, June, p. 14.
- Passive Diode Transponder Opens New Microwave Markets, April, p. 12.
- Pentagon Orders End To EMC Chaos, July, p. 10.
- Plans Detailed For Domestic Comsat, November, p. 20.
- Radar, Lasers Could Enter Police Arsenal, April, p. 10.
- Remember With Microwaves, January, p. 10.
- Rival Firms Clash On Phased-Array Retrofit for ARIS Radar, July, p. 14.
- SAM-D Limps Toward The 1970s, December, p. 14.
- Ship-Launched ABM Under Study For Navy, December, p. 12.
- SST Speeds Weather-Radar Development, February, p. 10.
- Straight Talk On Nike-X, November, p. 8.
- Technical Program Announced for MICROWAVE EXPOSITION/67, April, p. 16.
- Technical Program Readied For MI-CROWAVE EXPOSITION/67, March, p. 25.
- Thin Films Boosting BWO Performance, February, p. 16.
- Turbulenc Detection Radar Nears Operational Status, July, p. 18.
- Twin Meetings Will Focus On EMC Efforts, July, p. 12.

- 'Two-Pound' Radars Pushed For Limited-War Applications, December, p. 10.
- Vested Interest Foul-Up May Breed Big Microwave Communications Network, May, p. 10.
- YIG-Tuned Harmonic Multiplier Key To Programmable Signal Source, December, p. 17.

## **Cover Features**

- Coaxial Transistors Yield 90 mW at 3 Gc, August, p. 54.
- Complete Source Delivers 10 mW at 94 Gc, November, p. 90.
- Four-Gc Transistors Generate Up To 75 mW, August, p. 56.
- Germanium Hybrid Amplifier Covers 10- to 400 Mc, April, p. 98.
- Keep-Alive Killed By Passive TR-Limiter, September, p. 134.
- LSA Diode Goes On Sale, October, p. 76.
- Microwave Network Analyzer Tells All, January, p. 72.
- Miniature Component Family Uses Thin-Film Circuitry, March, p. 140.
- Minifilter Operates To 7.5 Gc, May, p. 66.
- Minimixer Weighs Less Than 0.5 Oz, May, p. 64.
- Multiplier Chain Operates at 94 Gc, November, p. 95.
- Power Meter 'Digits' Its Readout, December, p. 76.
- Quadrature Hybrid Works From 100 to 1000 Mc, June, p. 108.
- Stainless N Tops Performance At Lower Cost, July, p. 66.
- Varactors Stacked For Higher Power, February, p. 96.

# **Product Surveys**

- Fifth Annual Survey of Microwave Antennas, June, p. 45.
- Microwave Test Instruments, September, p. 69.
- Special Cables and Connectors, December, p. 62.
- Survey of Semiconductor Devices, April, p. 51.